13 CW

#19E 8/5/03 TM

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Steven A. Benner

Title: Precursors for Deoxyribonucleotides Containing Non-Standard Nucleosides

Appl. No.: 09/538,338

Filing Date: March 29, 2000

Examiner: Jehanne Souaya

Art Unit: 1634

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on the date below.

Gregory T. Pletta
(Printed Name)

(Signature)

March 8, 2003
(Date of Deposit)

AMENDMENT UNDER 37 C.F.R. §1.312

BOX ISSUE FEE
Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In the Specification:

Please replace the paragraph that immediately follows the Background of the Invention heading, at page 2, line 2, with the following rewritten paragraph:

E1

-- Natural oligonucleotides bind to complementary oligonucleotides according to the well-known rules of base pairing first elaborated by Watson and Crick, where adenine (A) pairs with thymine (T) or uracil (U), and guanine (G) pairs with cytosine (C), with the complementary strands anti-parallel to one another. These pairing rules allow for the specific hybridization of an oligonucleotide with complementary oligonucleotides, making oligonucleotides valuable as probes in the laboratory, in diagnostic applications, as messages that can direct the synthesis of specific proteins, and in a wide range of other applications well known in the art. Further, the pairing is the basis by which enzymes are able to catalyze the synthesis of new oligonucleotides that are complementary to template nucleotides. In this synthesis, building blocks (normally the triphosphates of ribo or deoxyribo derivatives of A, T, U, C, or G) are directed by a template oligonucleotide to form a complementary oligonucleotide with the correct sequence. This process is the basis for replication of all forms of life, and also serves as the basis for all technologies for enzymatic synthesis and amplification of specific heterosequence nucleic acids by enzymes such as DNA and RNA polymerase, and in the polymerase chain reaction.--